

Scholar Articles and patents - 2003 include citations Create email alert Results 1 - 100 of about 223. (0.31 sec)

Capillary monoliths for the analysis of nucleic acids by high-performance liquid chromatography-electrospray ionization mass spectrometry

H Oberacher, CG Huber - *TRAC Trends in Analytical Chemistry*, 2002 - Elsevier

... separation system is on-line hyphenated to ESI-MS, and this allows nucleic acids to ... mass-transfer properties is particularly important for the rapid and highly efficient separation of large ... transfer is the use of porous stationary phases that possess a bimodal pore size distribution ...

Cited by 74 - Related articles - All 7 versions

Micropreparative fractionation of DNA fragments on metathesis-based monoliths: influence of stoichiometry on separation

S Lubbad, B Mayr, CG Huber... - *Journal of Chromatography ...*, 2002 - Elsevier

... volume, all of the mobile phase is forced to flow through the pores of the ... separation media also possess distinctive advantages for preparative scale separations of nucleic acids [14 ... is still hard to predict the optimum monolith composition for a particular separation problem, there ...

Cited by 49 - Related articles - All 7 versions

New designs of macroporous polymers and supports: from separation to biocatalysis

F Svec... - *Science*, 1998 - sciencemag.org

... For example, small pores and large surface areas are essential for many supported catalysts and gas chromatography packings, whereas the separation of nucleic acids or the immobilization of enzymes require significantly larger pores. ...

Cited by 372 - Related articles - BL Direct - All 10 versions

Molded continuous poly (styrene-co-divinylbenzene) rod as a separation medium for the very fast separation of polymers Comparison of the chromatographic ...

M Petro, F Svec... - *Journal of Chromatography A*, 1996 - Elsevier

... In this case the mobile phase is driven through relatively large pores within the ... has a large effect, as demonstrated for the very fast separation of proteins and nucleic acids in ... We have developed a continuous separation medium in the shape of a rigid continuous macroporous ...

Cited by 98 - Related articles - BL Direct - All 7 versions

High-performance liquid chromatography-electrospray ionization mass spectrometry of single-and double-stranded nucleic acids using monolithic capillary columns

A Premstaller, H Oberacher... - *Analytical chemistry*, 2000 - ACS Publications

... rapid chromatographic separation of large molecules having low diffusivities such as nucleic acids ... to circumvent intraparticle diffusion is the complete elimination of the support pores resulting in ... 27.35 Consequently, to maintain the separation speed and performance upon the ...

Cited by 224 - Related articles - BL Direct - All 6 versions

[CITATION] High-speed bioseparation with monolithic columns

S Xie, J Lin, P Wagner... - *Poster*

Cited by 2 - Related articles

Advances in capillary electrochromatography and micro-high performance liquid chromatography monolithic columns for separation science

[\[PDF from crisis\]](#)

C Legido-Quigley, ND Marlin, V Melin... - ..., 2003 - Wiley Online Library

... Within the monolith and on the surface of the capillary and packing are residual silanol groups. ... Tanaka et al. [17, 18] have perfected their silica rods by studying the mechanism of pore formation and its relevance to the separation of proteins and peptides. ...

Cited by 184 - Related articles - BL Direct - All 7 versions

Polynucleotide separations on polymeric separation media

DT Gjerde, PD Taylor... - *US Patent 6,521,123*, 2003 - Google Patents

... phy-Electrospray Ionization Mass Spectrometry of Single- And Double-Stranded Nucleic Acids Using ... et al., Temperature, A Simple and Efficient Tool for the Control of Pore Size Distribution in ... embodiment, the monolith is characterized by having a DNA Separation Factor of at ...

Cited by 22 - Related articles - All 4 versions

Electrophoretic inorganic porous material

JP Day, J Lahiri, S Pat... - *US Patent App. 20,030 ...*, 2002 - freepatentsonline.com

... method of claim 22, wherein said sol gel monolith has pores with an average pore diameter greater ... The method of claim 17, wherein said molecules are nucleic acids. ... The method of claim 17, wherein said inorganic separating media enables separation of proteins in western ...

Cached

Electrophoretic inorganic porous material

JP Day, J Lahiri, S Pat, MA Quesada... - *US Patent App. 10/ ...*, 2002 - Google Patents

... method of claim 22, wherein said sol gel monolith has pores with an average pore diameter greater ... The method of claim 17, wherein said molecules are nucleic acids. ... The method of claim 17, wherein said inorganic separating media enables separation of proteins in western ...

Capillary array high-performance liquid chromatography of nucleic acids and proteins

A Premstaller, PJ Geier, H Oberacher... - *Analytical ...*, 2002 - ACS Publications

... As a consequence, differences in pore size and surface area between columns necessitated different concentrations of ... of laser-induced fluorescence detection enables the ready application of the array to the separation of biomolecules other than nucleic acids. ...

Cited by 26 - Related articles - BL Direct - All 5 versions

Nucleic acid separation using immobilized metal affinity chromatography

RC Willson... - *US Patent App. 20,040/152,076*, 2001 - freepatentsonline.com

... purine or pyrimidine moieties or groups such as RNA and other single stranded nucleic acids followed or preceded by a zone designed to affect a separation of the ... This type of compound column can be made using monolith technology and running a small amount of ...

Cached

Theoretical aspects of **separation** using short monolithic beds

YE Yennikova... - Journal of chromatography library, 2003 - Elsevier

... We have demonstrated earlier in this chapter that HPMDC of proteins and **nucleic** acids differs noticeably ... We indicated that the **separation** process in the former is not affected to a significant ... by diffusion through the stagnant pool of the mobile phase located in **pores** typical of ...

Cited by 2 - Related articles - BL Direct - All 2 versions

Application of membranes and compact, porous units for the **separation** of biopolymers

D Josic... - Industrial & engineering chemistry research, 1999 - ACS Publications

... is not limited to the **separation** of proteins but includes other complex biopolymers such as **nucleic** acids. ... Because of the lack of smaller **pores**, the specific surface of the support is very small, reducing ... Table 1. Review of Some Commercially Available Fast **Separation** Materials. ...

Cited by 75 - Related articles - BL Direct - All 3 versions

Polynucleotide separations on polymeric **separation** media

DT Gjerde, PD Taylor... - US Patent 6,355,791, 2002 - Google Patents

... Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene Oxide) ... Nordhoff et al, Mass Spectrometry of **Nucleic** Acids, Mass Spectrometry Reviews, 15:67-138 ...

Cited by 7 - Related articles - All 2 versions

Polynucleotide separations on polymeric **separation**

DT Gjerde, PD Taylor... - US Patent 6,309,549, 2001 - Google Patents

... Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene ... et al, High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled **Nucleic** Acids, Analytical ...

Cited by 2 - Related articles - All 2 versions

Nucleic acid analysis

CG Huber, H Oberacher - Journal of chromatography library, 2003 - Elsevier

... This drawback can be addressed by the elimination of diffusive **pores**, which restricts the mass transfer to a thin, retentive layer ... and mesopores may be adequately described as a micropellicular **monolith** [21] and has been shown to enable the **separation** of **nucleic** acids over ...

Cited by 1 - Related articles - BL Direct - All 2 versions

Separation media, multiple electrospray nozzle system and method

IN Corso, GA Schultz, SJ Prosser... - US Patent 6,596,988, 2003 - Google Patents

... channels filled with a **separation** material such as polymer **monolith** which can ... stacked in multiple blocks for sequential two-dimensional chromatographic **separation** and integrated ... Different PCR Amplification Systems in Microfabricated Silicon-Glass Chips," **Nucleic** Acids Res ...

Cited by 24 - Related articles - All 4 versions

Capillary electrochromatography in anion-exchange and normal-phase mode using monolithic stationary phases

M Lammemoier, F Svec, JMJ Frechet... - ... of Chromatography A, 2001 - Elsevier

... 2b shows that the modal **pore** size of a **monolith** prepared from a mixture containing 32 ... or high contents of the ionizable monomer, is less than ideal and the complete **separation** of the ... This results in the creation of monoliths with **pore** volumes smaller than the theoretical value or ...

Cited by 93 - Related articles - All 10 versions

Application of very short monolithic columns for **separation** of low and high molecular mass substances

A Podgornik, M Barut, S Jakša... - Journal of liquid ..., 2002 - Taylor & Francis

... and DNA are like flexible ticks, which rotate during their passage through the **pores**. ... The values of HETP vary from 18 µm for oligonucleotide containing four **nucleic** bases up to ... of Convective Interaction Media (CIM®) Disk Monolithic Columns for Fast **Separation** and Monitoring ...

Cited by 26 - Related articles - BL Direct - All 5 versions

Polynucleotide separations on polymeric **separation** media

DT Gjerde, PD Taylor... - US Patent 6,482,317, 2002 - Google Patents

... Nakanishi et al., Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene ... et al., High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled **Nucleic** Acids, Analytical Bio ...

Related articles - All 4 versions

Hydrophobic, pellicular, monolithic capillary columns based on cross-linked polynorbornene for biopolymer separations

B Mayr, G Hölzl, K Eder, MR Buchmeiser... - Analytical ..., 2002 - ACS Publications

... that have only poor solvating capabilities for the polymer ensure the formation of large **pores**. ... the latter is eminently suited for the **separation** of single- and double-stranded **nucleic** acids ... 26 A practical example for the **separation** of single-stranded oligodeoxynucleotides by IP-RP ...

Cited by 77 - Related articles - BL Direct - All 4 versions

Column for DNA **separation** by matched ion polynucleotide chromatography

DT Gjerde, RM Haefele, KH Hecker... - US Patent ..., 2002 - Google Patents

... Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene ... et al, High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled **Nucleic** Acids, Analytical ...

Cited by 12 - Related articles - All 2 versions

[CITATION] Monolithic Silica-bonded Stationary Phases for Capillary Electrochromatography

DJ Allen - 2003 - Oklahoma State University

Library Search

NOVEL MATERIAL FOR USE IN **SEPARATION** AND SEPARATING METHOD USING THE SAME

Y Akiyama, K Yoshizako, T Okano... - EP Patent ..., 2003 - freepatentsonline.com

... liquid sample (l) containing a target substance in contact with a **separation** medium/separatory ... the target substance include biological components composed of amino acids, saccharides, **nucleic acids**, etc. ... liquid may be able to flow through this kind of **pore** system (penetrability ...
[Cited by 1](#) - [Related articles](#) - [Cached](#)

Use of adsorbent polymer particles in DNA **separation**

LH Smiley - US Patent App. 20,030/162,853, 2002 - [freepatentsonline.com](#)
 ... 12. A method for the **separation** of a **nucleic acid** in ... environment allows them to withstand degradation and decomposition Physical properties of particular importance to chromatographic media are (1) sphericity of the particles, (2) high surface area; (3) high **pore** volume and ...
[Cached](#)

Column for DNA **separation** by matched ion polynucleotide chromatography

DT Gierde, RM Haefels, KH Hecker... - US Patent ... 2003 - [Google Patents](#)
 ... Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene ... et al, High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled **Nucleic Acids**, Analytical ...
[Cited by 4](#) - [Related articles](#) - [All 4 versions](#)

High-performance membrane chromatography of supercoiled plasmid DNA

R Giovannini, R Freitag... - Analytical chemistry, 1998 - ACS Publications
 ... no sufficient information concerning characteristics such as accessibility of the adsorptive surface or the **pore** size distribution for the ... 2) Tennikova, TB; Freitag, R. In Analytical and Preparative **Separation** Methods for ... 9) van Helden, PD; Hoal, EG In New **Nucleic Acid** Techniques ...
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High-performance liquid chromatography-electrospray ionization mass spectrometry using monolithic capillary columns for proteomic studies

A Premstaller, H Oberacher, W Walcher... - Analytical ... 2001 - ACS Publications
 ... The permanent porosity in the **monolith** is created upon phase **separation** of the solid polymer from the liquid porogens during the course of polymerization. Size and morphology of the **pores** strongly depend on several factors, including polymerization kinetics and solvency of ...
[Cited by 184](#) - [Related articles](#) - [BL Direct](#) - [All 5 versions](#)

Stimulus responsive affinity chromatographic material and **separation**/purification method

H Yamataka... - US Patent App. 20,040/ ... 2003 - [freepatentsonline.com](#)
 ... which interacts with the target substance include biocomponents composed of amino acids, sugars, **nucleic acids** and ... the support matrix is in the form of beads packed into a **separation** material, the ... **Pores** having a size of not greater than 0.5 μm (for example, not greater than ...
[Cached](#)

Modes of CEC **separation**

CM Johnson, AP McKeown... - Journal of Chromatography ... 2001 - Elsevier
 ... rigid porous polymer Size, charge and partition CEC packed SEC packed **pore** size silica ... 106-110 **separation** of a range of large proteins using a custom synthesised tentacular anion ... used to separate nucleobases and even strongly acidic analytes such as **nucleic acids** of ...
[Cited by 3](#) - [Related articles](#) - [BL Direct](#) - [All 2 versions](#)

Polymeric monolithic stationary phases for capillary electrochromatography

EF Hilder, F Svec... - Electrophoresis, 2002 - Wiley Online Library
 ... 3943 6.1 **Pore** size and efficiency ... This flexibility enables the easy tailoring of both the interactions that are required for spe- cific **separation** modes and ... exerted over the polymerization process enables the facile optimiza- tion of the porous properties of the **monolith**, and conse ...
[Cited by 122](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)

Polymeric support having novel **pore** structures

P Busson, R Palmgren... - US Patent App. 20,050/ ... 2003 - [freepatentsonline.com](#)
 ... In an alternative embodiment, the surface of the primary and/or secondary **pores** has been rendered hydrophilic. ... to the invention can be used as a chromatographic adsorbent for isolation or **separation** of biomolecules, such as proteins, **nucleic acids**, such as ...
[Cached](#)

Inorganic monolithic mouldings coated with organic polymers

Z Bayram-hafin, K Unger... - US Patent App. ... 2003 - [freepatentsonline.com](#)
 ... employed for the **separation** or purification of biological materials, such as proteins, **nucleic acids**, etc ... conditions arise in the **monolith**, again resulting in an impairment of the **separation** properties. ... In addition, a suitable choice of the **pore** structure of the inorganic moulding and of ...
[Cached](#)

Capillary electrochromatography: a rapidly emerging **separation** method

F Svec - Modern Advances in Chromatography, 2002 - Springer
 ... easier to pack. The effect of **pore** size on CEC **separation** was also studied in detail [70-75]. Figure 9 shows the van Deemter plots for a series of 7- μm ODS particles with **pore** size ranging from 10 to 400 nm. The best efficiency ...
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[\[PDF\] from nehu](#)

Separation and analysis of peptides and proteins

CK Larive, SM Lurie, M Zhong... - Analytical ... 1999 - ACS Publications
 ... N-Isopropylacrylamide and N-hydroxyethylacrylamide (70:30) were used to chemically coat wide-**pore** glass (mean **pore** diameter 2000 Å, particle size 0.16-0.31 mm). This material was then packed into 9 × 1 cm glass columns and used for the **separation** of proteins. ...
[Cited by 59](#) - [Related articles](#) - [BL Direct](#) - [All 5 versions](#)

Porous polymer monoliths: an alternative to classical beads

S Xie, R Allington, J Fréchet... - Modern advances in ... 2002 - Springer

... Since all the mobile phase must flow through the **monolith**, the mass transport within ... The applications of monolithic materials are demonstrated on the chromatographic **separation** of biological ... Grafting of the **pore** walls with selected polymers leads to materials with completely ...
[Cited by 37](#) - [Related articles](#) - [BL Direct](#) - [All 5 versions](#)

Organic Polymer Support Materials

F Svec - CHROMATOGRAPHIC SCIENCE SERIES, 2002 - books.google.com
 ... Small **pores** and large surface areas are essential for the HPLC of small molecules, whereas the **separation** of large molecules such as proteins and **nucleic** acids requires significantly larger **pores**. As a rule, the larger the **pores**, the lower the overall surface area. ...
[Cited by 1](#) - [Related articles](#) - [BL Direct](#)

University of California at Berkeley Berkeley, California

F Svec - HPLC of biological macromolecules, 2002 - books.google.com
 ... Small **pores** and large surface areas are essential for the HPLC of small molecules, whereas the **separation** of large molecules such as proteins and **nucleic** acids requires significantly larger **pores**. As a rule, the larger the **pores**, the lower the overall surface area. ...
[Related articles](#)

Methods and compositions for mutation analysis of polynucleotides by liquid chromatography

PD Taylor... - US Patent App. 20,030/225,261, 2002 - freepatentsonline.com
 ... In the **separation** method, a mixture containing both heteroduplex and homoduplex **nucleic** acid molecules is applied to a stationary reverse-phase support. The sample mixture is then eluted with a mobile phase containing an ion-pairing reagent and an organic solvent. ...
[Cached](#)

Microfluidic integrated microarrays for biological detection

JAA West, TJ Sheppard, SK Griffiths... - US Patent App. ..., 2003 - freepatentsonline.com
 ... Larger **pore** sizes lead desirably to lower pressure differential. ... residue and to a lesser extent to the N7 position on an adenine **nucleic** acid base to ... The mobile polymer **monolith** microvalves are typically fabricated by photoinitiating phase-**separation** polymerization in specified ...
[Cached](#)

Targeted separation protocols for rapid characterizations of polymers

A Safir, M Petro, RB Nielsen... - US Patent 6,491,823, 2002 - Google Patents
 ... 10,2002 (54) TARGETED SEPARATION PROTOCOLS FOR RAPID CHARACTERIZATIONS OF POLYMERS (75) Inventors: Adam Safir, Berkeley, CA (US); Miroslav Petro, San Jose, CA (US); Ralph B. Nielsen, San Jose, CA (US); Eric Carlson, Palo Alto, CA (US) (73) Assignee ...
[Cited by 15](#) - [Related articles](#) - [All 2 versions](#)

Applications of monolithic silica capillary columns in proteomics

B Barroso, D Lubda... - Journal of proteome research, 2003 - ACS Publications
 ... of the cells and soluble components from the human lung (phospholipids, **nucleic** acids, and ... diffusion barrier, namely the use of silica particles with an appropriate **pore** diameter of ... Figure 8 Reversed phase **separation** on a Chromolith CapRod RP18e monolithic silica capillary ...
[Cited by 45](#) - [Related articles](#) - [All 3 versions](#)

Silica gel-based monoliths prepared by the sol-gel method: facts and figures

AM Sliem - Journal of Chromatography A, 2003 - Elsevier
 ... capillary columns prepared by copolymerization of styrene and divinylbenzene inside a 200-µm ID fused-silica capillary to analyse **nucleic** acids by ... By combining the sol-gel reaction with phase **separation** and a subsequent solvent exchange treatment, double-**pore** silica gel ...
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[PDF] Electrophoresis of Nucleic Acids

KR Mitchelson... - bib.tiera.ru
 ... 1: Introduction to the Capillary Electrophoresis of **Nucleic** Acids Edited by: KR Mitchelson and J. Cheng © Humana Press Inc., Totowa, NJ 1 ... of capillary electrophoresis (CE) technology has been rapid over the past three years for application to the analytical **separation** in a ...
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Recent progress in high-performance capillary bioseparations

CW Huck, G Stecher, R Bakry... - Electrophoresis, 2003 - Wiley Online Library
 ... into and out of the stagnant mobile phase present in the micro- and meso- **pores** of the ... of silica particles and PS/DVB **monolith** in a capillary column format for the **separation** of proteins ... the basis of PS/DVB, we found that in addition to proteins, peptides, and **nucleic** acids also ...
[Cited by 23](#) - [Related articles](#) - [BL Direct](#) - [All 6 versions](#)

Manufacturing process for porous material

H Berg... - US Patent App. 20,040/039,193, 2003 - freepatentsonline.com
 ... The ratio between the **pore** diameters of the micropores may in the preferred variants extend up to 0.05 but is otherwise ... [0048] Beads having densities above about 1 g/cm³ (in a wet swollen state) are used in **separation** methods involving ... [0059] (g) complementary **nucleic** acids ...
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Microfluidic integrated microarrays for biological detection

JAA West, TJ Sheppard, SK Griffiths... - US Patent App. 10/, ..., 2003 - Google Patents
 ... A number of problems are associated with using gel-based **separation** for capturing and concentrating sample **nucleic** acids. ... on the surfaces of the **pores** that are capable of contacting and bonding to analytes passing through the **pores**. [0042] The term "**nucleic** acid" refers ...

Design of the monolithic polymers used in capillary electrochromatography columns

F Svec, EC Peters, D Sykora... - Journal of Chromatography A, 2000 - Elsevier
 ... The genesis, properties and applications of these novel **separation** media have recently been detailed ... the same redox system, the second polymerization proceeded within the **pores** of the ... Reaction of both epoxide and hydroxyl functionalities located within the **monolith** with 1,2 ...
[Cited by 222](#) - [Related articles](#) - [All 8 versions](#)

Monolithic porous polymer for on-chip solid-phase extraction and preconcentration prepared by photoinitiated in situ polymerization within a microfluidic device

C Yu, MH Davey, F Svec... - Analytical chemistry, 2001 - ACS Publications

... HPLC and CEC of small molecules, chiral compounds, proteins, peptides, and **nucleic acids**. ... The **pore** size distribution and specific surface area of these monolithic materials were determined ... form a homogeneous solution and (ii) to control the phase **separation** process during ...

Cited by 295 - Related articles - BL Direct - All 6 versions

High speed immuno-affinity chromatography on supports with gigapores and porous glass

M Schuster, E Wasserbauer, A Neubauer... - Bioseparation, 2000 - Springer

... the immobilization of affinity ligands such as antibodies, enzymes, lec- tins, **nucleic acids**, and ... **pores** of uniform and precisely controlled size with a mean **pore** diameter of ... of chromatographic columns packed with conventional porous particles in terms of **separation** power, capa ...

Cited by 28 - Related articles - BL Direct - All 6 versions

[PDF] New chromatography columns and accessories at the 2001 Pittsburgh Conference, Part I

[PDF] from finda

RE Majors - LC GC EUROPE, 2001 - chromatographyonline ...

... mesopores: 130 dimensions; 18% carbon loading; **monolith** design enables high flow rates with good efficiency. ... The recommended application for this column is the **separation** of sugars, because the diol shows ... on 6- m dp ultrahigh-purity silica media with 120-Å **pore** diameters ...

Cited by 12 - Related articles - View as HTML - BL Direct - All 11 versions

Chip-based solid-phase extraction pretreatment for direct electrospray mass spectrometry analysis using an array of monolithic columns in a polymeric substrate

A Tan, S Benetton... - Analytical chemistry, 2003 - ACS Publications

... Since covalent bonding to the channel walls is not involved, the **monolith** was retained ... Zeonor polymer chip; (B) SEM image showing the details of monolithic nodules and **pores**. ... Since some partial **separation** or limited chromatography may be expected in SPE techniques, the ...

Cited by 88 - Related articles - BL Direct - All 7 versions

Denaturing high-performance liquid chromatography: A review

W Xiao... - Human mutation, 2001 - Wiley Online Library

... 1b) was generated using a poly(styrene-divinylbenzene) **monolith** synthesized in situ in a ... Both chromatograms underscore the excellent size-dependent **separation** efficiency of poly(styrene ... benzene) in ion-pair reversed-phase liquid chromatography of **nucleic acids** enabling ...

Cited by 694 - Related articles - BL Direct - All 4 versions

Membranes, membrane processes, and their applications: needs, unsolved problems, and challenges of the 1990's

AS Michaels - Desalination, 1990 - Elsevier

... Microporous membranes can also be rendered selectively adsorptive by coupling ionically charged groups to the **pore** surfaces, thereby producing anion or cation-exchange membranes. ... **Separation** of immunoglobulin from albumin, or of **nucleic acids** from proteins, can often ...

Cited by 43 - Related articles - All 3 versions

[PDF] Membrane-Assisted Isoform ImmunoAssay: Separation and determination of protein isoforms

[PDF] from diva-

M Lönnerberg - 2002 - uu.diva-porta1.org

Page 1. Membrane-Assisted Isoform ImmunoAssay: **Separation** and Determination of Protein Isoforms BY MARIA LÖNNBERG UPPSALA UNIVERSITY 2002 ... Membrane-Assisted Isoform ImmunoAssay **Separation** and determination of protein isoforms BY MARIA LÖNNBERG ...

View as HTML - All 6 versions

Method for the separation of bioproducts

I Galiev, R Hattikaul... - US Patent App. 20,040/ ..., 2003 - freepatentsonline.com

... September, 2003 - 20030170731 2'-fluoropyrimidine anti-calf intestinal phosphatase **nucleic acid** ligands ... ion exchange material or a hydrophobic material conventionally used in **separation** processes based ... PAA with high molecular weight did not diffuse inside the **pores** of the ...

Cached

Ligand binding assay and kit with a separation zone for disturbing analytes

J Carlsson... - US Patent App. 10/633,653, 2003 - Google Patents

... The matrix may be in the form of **monolith**, sheet, column, membrane, separate flow channels ... that determine how the **separation** will succeed are the length of the **separation** zone, ligand ... binding lectins; Ig(Fc)-binding protein (such as Protein A and G); **nucleic acid**, such as ...

All 2 versions

Methods and reagents for analysis of RNA structure and function

DP Hornby... - US Patent App. 20,020/094,539, 2002 - freepatentsonline.com

... (1987) **Nucleic Acids Res.** ... theory, it is believed that **pores** having dimensions that allow movement of the polynucleotide into the interconnected **pore** structure and ... A **monolith** is a polymer **separation** media, formed inside a column, having a unitary structure with through **pores** or ...

Cached

[book] Separation Technologies for the Industries of the Future

... (US). Panel on Separation Technology for Industrial ... - 1998 - books.google.com

... **Separation** Technologies for the Industries of the Future Panel on **Separation** Technology for Industrial Reuse and Recycling Committee on Industrial Technology Assessments National Materials Advisory Board Commission on Engineering and Technical Systems National ...

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[book] Monolithic materials: preparation, properties, and applications

F Svec... - 2003 - books.google.com

... 281 13.4 Approaches to imprinted monoliths with flow through **pores** 284 13.5 Conclusions 297 13.6 Acknowledgements ... 417 Christian G. HUBER and Herbert OBERACHER 19.1 Introduction 418 19.2 Liquid Chromatographic **Separation** Systems for **Nucleic Acids** 419 ...

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Non-polar media for polynucleotide separations

DT Gjerde... - US Patent 6,372,130, 2002 - Google Patents

... Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol-Gel Science & ... Nakanishi et al., Phase **Separation** in Silica Sol-Gel System Containing Poly(Ethylene ... et al, High-Resolution Liquid Chromatography of Fluorescent Dye-Labeled **Nucleic** Acids, Analytical ...
Cited by 6 - Related articles - All 2 versions

Method for isolating single-stranded DNA

DP Hornby... - US Patent App. 09/770,846, 2001 - Google Patents

... which provides sufficient amplification so that the target sequence can be detected by **nucleic** acid hybridization ... [0048] In a preferred embodiment of the invention, the chromatographic **separation** medium comprises nonporous beads, ie, beads having a **pore** size that ...
Cited by 3 - Related articles - All 2 versions

Methods and reagents for analysis of RNA structure and function

DP Hornby... - US Patent App. 10/058,267, 2002 - Google Patents

... (1987) **Nucleic** Acids Res. ... [0063] In a preferred embodiment of the invention, the chromatographic **separation** medium comprises ... 18, 2002 6 beads, ie, beads having a **pore** size that essentially excludes the polynucleotides being separated from entering the bead, although ...

Methods and reagents for analysis of rna structure and function

DP Hornby... - US Patent App. 09/727,138, 2000 - Google Patents

... (1987) **Nucleic** Acids Res ... 0064] In a preferred embodiment of the invention, the chromatographic **separation** medium comprises ... 4, 2002 6 beads, ie, beads having a **pore** size that essentially excludes the polynucleotides being separated from entering the bead, although porous ...

All 2 versions

Chromatographic performance of a thin microporous bed of nitrocellulose

M Lönberg... - ... of Chromatography B: Biomedical Sciences and ... 2001 - Elsevier

... and speed-up analytical chromatographic techniques suitable for work with proteins, **nucleic** acids and ... α 2 sample contributes proportionally more in the initial part of the **separation**, yet, even ... zone broadening during BFB migration was studied in membranes with **pore** sizes of 3 ...

Cited by 13 - Related articles - All 8 versions

Method and device for isolating and purifying a polynucleotide of interest on a manufacturing scale

R Nedina, J Urthaler, A Podgornik... - EP Patent ... 2003 - freepatentsonline.com

... have been made with polynucleotides in the field of gene therapy and **nucleic** acid vaccines ... consequence, mass transport is enhanced by convection and has a positive effect on the **separation**. ... made of a single piece of porous silica with a defined bimodal **pore** structure having ...

Related articles - Cached

Detection of polymorphisms by denaturing high-performance liquid chromatography

PJ Oefner - US Patent 6,453,244, 2002 - Google Patents

... in the present methods may be any reverse phase solid support, including **monolith** station- ary ... carried out under pH conditions effective to maintain complete denaturation of the **nucleic** acids. ... US 6,453,244 B1 5 therein is identified using the **separation** method of the present ...

Cited by 18 - Related articles - All 3 versions

Synthetic Polymers

D Sykora... - Journal of Chromatography Library, 2003 - Elsevier

... combination of fast change in solvency with slow liberation of the dissolved macromolecules from the smaller **pores** results in ... The sample loading affects the **separation** much less than in the case of packed beds. ... 34 CG Huber, PJ Oefner, E. Preuss, GK Bonn, **Nucleic** Acid Res. ...

Related articles

Method for DNA footprinting

DP Hornby... - US Patent App. 20,020/137,037, 2000 - freepatentsonline.com

... described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic** Acids Res. ... dimensions that allow movement of the polynucleotide into the interconnected **pore** structure and ... A **monolith** is a polymer **separation** media, formed inside a column, having a ...

Cached

Maxam gilbert g/a sequence analysis by DHPLC

DP Hornby... - US Patent App. 10/058,151, 2002 - Google Patents

... ladder described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic** Acids Res. ... [0057] In a preferred embodiment of the invention, the chromatographic **separation** medium comprises nonporous beads, ie, beads having a **pore** size that ...

All 2 versions

Process for performing polynucleotide separations

DT Gjerde, RM Haefele... - US Patent 6,156,206, 2000 - Google Patents

... od DNA Fragments on Non-Porous Poly(Styrene-Divinylben- zene) Particles, **Nucleic** Acids Research ... Nakanishi et al., Double **Pore** Silica Gel **Monolith** Applied to Liquid Chromatography, J. Sol ... Rod of Macroporous Poly- (styrene-co-divinylbenzene) as a **Separation** Medium of ...

Cited by 6 - Related articles - All 2 versions

Method for DNA footprinting

DP Hornby... - US Patent App. 09/728,918, 2000 - Google Patents

... ladder described by Belikov and Wieslander is employed (Belikov & Wieslander (1995) **Nucleic** Acids Res. ... [0055] In a preferred embodiment of the invention, the chromatographic **separation** medium comprises nonporous beads, ie, beads having a **pore** size that ...

DETECTION OF POLYMORPHISMS BY DENATURING HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

PJ Oefner - US Patent App. 20,020/150,892, 2000 - freepatentsonline.com

... Any of a number of commercially available reverse phase solid supports may be utilized in the present **nucleic acid separation** method, although ... A porous stationary phase may contain more than one type of **pore** or **pore** system, eg, containing micropores (less than about ...

Cached

Calcium phosphate microcarriers and microspheres

LB Stirling... - US Patent 6,358,532, 2002 - Google Patents

... in the range of about 20% to about 60% and a **pore** size range ... column while maintaining the ability to separate and purify proteins, enzymes, **nucleic acids**, viruses ... wall of the hollow porous microsphere improves permeability for greater efficiency of **separation** and purification. ...

Cited by 21 - Related articles - All 4 versions

Method for producing liquid chromatography matrices

N Norman... - US Patent App. 10/451,193, 2003 - Google Patents

... The ratio between the **pore** diameters of the macropores and the bead diameter typically ... IgG etc), [0056] (d) chelators and chelates, [0057] (e) complementary **nucleic acids**, [0058 ... EXPERIMENTAL PART Example 1 [0061] Determination of the Hydrophobicity of **Separation** Media ...

Recent developments in ion chromatography

C Sarzanini - Journal of Chromatography A, 2002 - Elsevier

... eg Vydac 301 VHP575) proved to be suitable for the **separation** of proteins and related compounds. Lesignoli et al. [43] used this kind of stationary phase in the HPIC analysis of single- or double-stranded oligonucleotides using complementary peptide **nucleic acid** (PNA ...

Cited by 43 - Related articles - All 12 versions

[PDF] from nau.s

High performance reversed-phase liquid chromatography using novel cim RP-SDVB monolithic supports

M Merhar, A Podgornik, M Barut... - Journal of liquid ..., 2001 - Taylor & Francis

... Oligodeoxynucleotide was synthesized on a controlled **pore** glass solid support using conventional phosphoramidite chemistry with the DNA synthesizer (Expedite **Nucleic Acid** Synthesis ... which have already proven to be very efficient for the **separation** of large ...

Cited by 18 - Related articles - EL Direct - All 6 versions

[PDF] Douglas T. Gierde, Christopher P. Hanna, David Hornby

DNACDT Gierde - 2002 - bib.tiera.ru

... 167 mismatch endonuclease 163 mixer 22 MMAC1 98 mobile phase 42 molar absorptivity 30 molar concentration 39 molecular diagnostics 171 **monolith** polymeric columns ... Gel electrophoresis has allowed the **separation** and purification of a wide variety of **nucleic acid** mole ...

Related articles - View as HTML - All 3 versions

[PDF] from tiera.

Macroporous cross-linked polymer particles

T Soderman - US Patent App. 10/514,857, 2003 - Google Patents

... 0.091 300 500 0.450 500- 1000 0.213 0.090 1000- 2000 2000- 5000 **Pore** Radius (A ... **separation** methods are useful eg for recovery of biomolecules, such as **nucleic acids** and ... 5,334,310 discloses a liquid chro- matographic column that contains a **separation** medium in the form ...

Properties and applications of proteins encapsulated within sol-gel derived materials

W Jin, JD Brennan - Analytica Chimica Acta, 2002 - Elsevier

... in the use of biomolecules for the selective extraction, delivery, **separation**, conversion and ... species, including enzymes, antibodies, regulatory proteins, membrane-bound proteins, **nucleic acids** and even ... for electrochemical sensors and (c) they have a tuneable **pore** size and ...

Cited by 377 - Related articles - All 5 versions

Macroporous cross-linked polymer particles

T Soderman - US Patent App. 20/050/143,477, 2003 - freepatentsonline.com

... **separation** methods are useful eg for recovery of biomolecules, such as **nucleic acids** and ... 5,334,310 discloses a liquid chromatographic column that contains a **separation** medium in the form of a ... Such a large **pore** diameter range is advantageous for monoliths to allow a high ...

Cached

Method and system for the preparation of cDNA

KH Hecker, A Azarani, D Hornby... - US Patent ..., 2003 - Google Patents

... In another preferred embodiment, the library of cDNA inserts comprises cDNA inserts residing in **nucleic acid** vectors, such as plasmids and phage vectors, which are preferably maintained in host ... 1° In another embodiment, the **separation** medium comprises a **monolith**. ...

Cited by 3 - Related articles - All 3 versions

Quantitative fast fractionation of a pool of polyclonal antibodies by immunoaffinity membrane chromatography

GA Platonova, GA Pankova, IY Il'ina... - ... of Chromatography A, 1999 - Elsevier

... such as proteolysis [19, 20, 21, 22, 23, 24, 25 and 26], hydrolysis of **nucleic acids** [19 ... chromatography (HPMC) is a very useful **separation** method that allows to carry out the **separation** of complex ... The porous polymer had a mean **pore** size of 800 nm, a **pore** volume of 0.6 ml/ml ...

Cited by 51 - Related articles - All 8 versions

Temperature-modulated array high-performance liquid chromatography

A Premstaller, W Xiao, H Oberacher... - Genome ..., 2001 - genome.cshp.org

... the ratio of styrene to divinylbenzene affect the degree of polymerization and, consequently, **pore** size ... pressure was greater in case of the capillary columns that retained the **nucleic acids** longer ... Rather, it can be applied to any chromatographic **separation** sensitive to temperature ...

Cited by 26 - Related articles - BL Direct - All 11 versions

[HTML] from csh

[PDF] Douglas T. Gierde Christopher P. Hanna David Hornby DNA Chromatography

DNACDT Gierde - 2002 - sci-lib.org

... 2 Polymeric Resins 59 3.4.2.1 Substrate and Crosslinking 59 3.4.2.2 Porous and Nonporous Resins 59 3.4.2.3 **Monolith** Polymeric Columns ... review articles published in 1986 and 1987 are a series of 6 publications, each dealing with some aspect of **nucleic acid separation**. ...

[PDF] from sci-lib

[Related articles](#) - [View as HTML](#)

Chromatography material and a process of manufacturing that material

A Jungbauer, R Hahn, A Podgornik... - US Patent App. ..., 2002 - [freepatentsonline.com](#)
... reacted with glycidyl methacrylate and the resulting conjugate is further process after **separation** of byproducts. ... 0034] The spacer is selected considering the **pore** size of ... the purification of plasma proteins, recombinant proteins, plant protein, bacterial proteins, **nucleic** acids such ...
[Cached](#)

Methods, systems, and kits for analysis of polynucleotides

BL Legendre, JG Rudolph... - US Patent App. 10/288,406, 2002 - [Google Patents](#)
... SYBR Green II stain, or a mixture thereof; in a separate containers, SYBR Gold **nucleic** acid stain or PicoGreen. [0011] In still another aspect the invention provides an apparatus for analyzing polynucleotides including: (a) means for chromatographic **separation** wherein one or ...

From the combinatorial chemistry boom to polymer-supported parallel chemistry: established technologies for drug discovery

M Cario... - [Drugs of the Future](#), 2003 - [journals.prous.com](#)
... This process allows simultaneous activation of the acid 2 and **separation** from ester impurities ... heated to achieve polymerization initiated by radicals anchored at the **pore** surface. ... of a natural product (107-111), in addition to biopolymers (peptides, **nucleic** acids, oligosaccharides ...
[Cited by 14](#) - [Related articles](#) - [All 5 versions](#)

Advances in sample preparation in electromigration, chromatographic and mass spectrometric separation methods

M Gilar, ESP Bouvier... - [Journal of chromatography A](#), 2001 - [Elsevier](#)
... Analyte is eluted onto the analytical column where the **separation** of the analyte from residual interferences is performed. ... After the sorbent is wetted, water of aqueous buffer (sample) can displace the organic solvent in the **pores**. ...
[Cited by 86](#) - [Related articles](#) - [All 7 versions](#)

Composite matrices with interstitial polymer networks

RF Hammen... - US Patent App. 20/020/ ..., 2001 - [freepatentsonline.com](#)
... More preferred crosslinking agents have polymer spacer regions from 24-120 atoms **separation**. ... parallel synthesis composites is a matrix of glass fibers (filter paper) with preferred **pore** diameters of 5 ... [0075] Preferred embodiments of parallel composites for **nucleic** acid synthesis ...
[Cached](#)

Method and system for RNA analysis by matched ion polynucleotide chromatography

DT Gierde, DP Hornby, CP Hanna... - US Patent ..., 2003 - [Google Patents](#)
... Micropreparative **Separation** of Transfer Ribo- **nucleic** Acids by High-Performance Liquid Chromatography, *Journal of Chromatography*, 463:409-417 (1989). Drager et al. ... **Separation** of Oligo-RNA by Reverse-Phase HPLC, *Nucleic Acids Research*, No. 4, 7:1067-1080 (1978). ...
[Cited by 2](#) - [Related articles](#) - [All 3 versions](#)

Electroosmotic and pressure-driven flow in open and packed capillaries: velocity distributions and fluid dispersion

[\[PDF\] from wallu](#)

U Tallarek, E Rapp, T Schöenen... - *Analytical ...*, 2000 - [ACS Publications](#)
... University, Dreijenlaan 3, 6703 HA Wageningen, The Netherlands, and Research Center of **Nucleic** Acid and ... high-purity particles (d p = 40 µm with 9-nm average **pore** size) were ... can largely explain the reduced number of theoretical plates obtained for a given **separation**. ...
[Cited by 84](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)

Modifying double stranded DNA to enhance separations by matched ion polynucleotide chromatography

DT Gierde, PD Taylor... - US Patent 6,210,885, 2001 - [Google Patents](#)
[Cited by 12](#) - [Related articles](#) - [All 2 versions](#)

Hydrotreating catalyst and method

R Galiasso, G Arreaza, S Quenza... - US Patent App. ..., 2003 - [freepatentsonline.com](#)
... 20080269475, Sorbent for **Nucleic** Acids, Comprising Acid-Activated Layer Silicate, October, 2008, Sohling. ... 3/g and a ratio of mesopore **pore** volume to total **pore** volume of ... such a process is a hydrotreatment process following hydrodesulfurization and hot **separation** whereby a ...
[Cached](#)

Novel functionalized polymer for oligonucleotide purification

VJ Shah - US Patent App. 20/050/065,290, 2003 - [freepatentsonline.com](#)
... Preferably, the porous beads have a **pore** size of at least 100 Å, and more preferably about ... limited to applications involving purification of oligonucleotides, but is useful in the chromatographic **separation** of analytes including, but not limited to, **nucleic** acids, peptides ...
[Cached](#)

Chromatography material and a process of manufacturing that material

A Jungbauer, R Hahn, A Podgornik... - US Patent ..., 2003 - [Google Patents](#)
... glycidyl methacrylate and the resulting conjugate is further process after **separation** of byproducts ... of the compound B. The spacer is selected considering the **pore** size of ... purification of plasma proteins, recombinant proteins, plant protein, bacterial proteins, **nucleic** acids such ...
[Cited by 1](#) - [Related articles](#) - [All 2 versions](#)

Method and system for the preparation of cDNA

KH Hecker, A Azarani, D Hornby... - US Patent App. ..., 2001 - [freepatentsonline.com](#)
... fragments of DNA, or, more typically, will reside as inserts in a **nucleic** acid vector. ... **pores** having dimensions that allow movement of the polynucleotide into the interconnected **pore** structure and ... A **monolith** is a polymer **separation** media, formed inside a column, having a unitary ...
[Cached](#)

Focus. Dealing with 'real' samples: sample pre-treatment in microfluidic systems

AJ de Mello... - Lab on a Chip, 2003 - pubs.rsc.org

... to 10 $\mu\text{L min}^{-1}$) are achievable due to the facile control of **pore** sizes, and ... The high degree of functional integration (reagent mixing, product **separation** and post-column labelling) provides ... tools to efficiently and rapidly analyse entities such as proteins, cells, **nucleic** acids and ...

[Cited by 73](#) - [Related articles](#) - [All 4 versions](#)

Manufacture of improved support matrices

E Berggren... - US Patent App. 20 030/144,127, 2002 - freepatentsonline.com

... **Separation** processes include chromatographic processes and batch-wise processes ... beam or gamma-ray irradiation, it will in principle be possible to produce support matrices having predetermined particle size and **pore** size distributions ... [0066] (g) complementary **nucleic** acids ...

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